

REMARKS

This application has been carefully reviewed in light of the Office Action dated July 31, 2003 (Paper No. 25). Claims 16 to 24, 37 to 40, 42, 44 to 47, 49, 79 and 80 are currently in the Office Action, with Claims 1 to 15, 25 to 35 and 51 to 78 having been canceled herein without prejudice or disclaimer of the subject matter contained therein. Reconsideration and further examination are respectfully requested.

Claims 16 to 24, 79 and 80 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,982,928 (Shimada) in view of U.S. Patent No. 5,235,654 (Anderson); and Claims 37 to 41, 44 to 47 and 49 were rejected under § 103(a) over Shimada in view of Anderson and further in view of JP 58-182956 (Sakai) and U.S. Patent No. 5,848,187 (Bricklin). Applicant has considered the Examiner's comments together with the applied references and submits that the claims herein are patentably distinguishable over the applied references for at least the following reasons.

The invention concerns character recognition of image data obtained by scanning a manuscript. According to one aspect of the invention, a manuscript ID indicating identification information of a scanned manuscript is transmitted from a terminal to a central control unit. The manuscript ID is transmitted to the central control unit without image data of the scanned manuscript. The central control unit obtains information of character recognizing condition based on the received manuscript ID and transmits the obtained information of character recognizing condition back to the terminal. The terminal then performs character recognition of the image data of the scanned manuscript in accordance with the information of character recognizing condition. In this manner, the terminal can perform character recognition in an optimal manner using the

information of character recognizing condition obtained by the central control unit. In addition, by not including the image data with the manuscript ID sent to the central control unit, the communication load between the terminal and central control unit is reduced thereby allowing total throughput of the system to be increased.

With reference to particular claim language, independent Claims 16, 20 and 24 concern a communication system that includes a terminal and a central control unit. Image data of a manuscript is obtained by scanning the manuscript, where the image data includes a manuscript ID image. The manuscript ID image included in the image data is recognized and a manuscript ID is obtained as the recognition result of the manuscript ID image. The manuscript ID indicates information for an identification of the manuscript. The obtained manuscript ID is transmitted without the image data of the manuscript from the terminal to the central control unit. The central control unit obtains an information of character recognizing condition based on the manuscript ID, where the information of character recognizing condition includes positional information of recognition areas of the image data. A control signal including the information of character recognizing condition is transmitted from the central control unit to the terminal. Character images included in the image data are recognized in accordance with the information of character recognizing condition included with the control signal.

Independent Claim 79 concerns a terminal that performs communication with a central control apparatus. The terminal obtains image data of a manuscript by scanning the manuscript, where the image data includes a manuscript ID image. The manuscript ID image included in the image data is recognized and a manuscript ID is obtained as the recognition result of the manuscript ID image, where the manuscript ID

indicates information for an identification of the manuscript. The obtained manuscript ID is transmitted without the image data of the manuscript to the central control apparatus. A control signal is received from the central control apparatus, the control signal including an information of character recognizing condition of the manuscript determined by the central control apparatus based on the manuscript ID. The information of character recognizing condition includes positional information of recognition areas of the image data. Character recognition of character images included in the image data is performed in accordance with the information of character recognizing condition included with the control signal.

Independent Claim 80 concerns a central control apparatus that performs communication with a terminal. A manuscript ID is transmitted from the terminal to the central control apparatus, where the manuscript ID is obtained by the terminal by recognizing a manuscript ID image included in image data obtained by scanning a manuscript. The manuscript ID is transmitted from the terminal without the image data of the manuscript. An information of character recognizing condition is obtained based on the received manuscript ID, the information of character recognizing condition including positional information of recognition areas of the image data. A control signal including the obtained information of character recognizing condition is transmitted to the terminal. The terminal performs character recognition of character images included in the image data in accordance with the information of character recognizing condition included in the transmitted control signal.

The applied references are not seen to disclose or suggest the foregoing features of the present invention. In particular, the applied references are not seen to disclose or suggest at least the feature of a terminal transmitting a manuscript ID of a

scanned manuscript without image data of the scanned manuscript to a central control unit to receive information of character recognizing condition obtained by the central control unit base on the manuscript ID, where the terminal performs character recognition of character images included in image data of the scanned manuscript in accordance with the obtained information of character recognizing condition.

Shimada concerns a character recognition system in which handwritten character data received by a host terminal are recognized using a dictionary corresponding to the sources of the data. For example, as described in column 5, lines 50 to 60, of Shimada, character data received from terminals connected to the host terminal are returned to their respective terminals for character recognition using a registered dictionary and recognition engine at the respective terminal. Character data received at the host terminal includes attribute data such as name of describer or terminal ID, which is used to identify the source of the data. The Office Action contended that this attribute data corresponds with the manuscript ID of the present invention. Even if this interpretation of Shimada were correct, which Applicant does not concede, the process described in Shimada differs from that of the present invention.

In Shimada, terminals 5 and 7, which the Office Action contended correspond with the terminal of the present invention, send handwritten data input by a user of the terminal to host terminal 10000, which the Office Action contended corresponds with the central control unit of the present invention. However, the handwritten data transmitted between the terminals and the host terminal in Shimada is seen to differ from that transmitted in the present invention. Specifically, the handwritten data transmitted between the terminals and the host terminal in Shimada is seen to include

both character data and attribute data. In contrast, the present invention transmits a manuscript ID without image data of the scanned manuscript. Therefore, Shimada is not seen to reduce the communication load between the terminals and the host terminal by sending the attribute data without the character data.

Anderson is not understood to disclose or suggest anything to remedy the foregoing deficiencies of Shimada. Anderson concerns a system for processing scanned images of document forms. Anderson was cited in the Office Action for its disclosure of scanning documents and for using positional information within the scanned documents. However, Anderson is not understood to disclose or suggest transmitting a manuscript ID without image data of a scanned form from a terminal to a central control unit.

Therefore, neither Shimada nor Anderson, either alone or in combination, are seen to disclose or suggest at least the feature of a terminal transmitting a manuscript ID of a scanned manuscript without image data of the scanned manuscript to a central control unit to receive information of character recognizing condition obtained by the central control unit base on the manuscript ID, where the terminal performs character recognition of character images included in image data of the scanned manuscript in accordance with the obtained information of character recognizing condition.

Sakai and Bricklin, which were applied in the rejection of certain dependent claims, are not understood to disclose or suggest anything to remedy the foregoing deficiencies of Shimada and Anderson. Specifically, neither Sakai nor Bricklin are understood to disclose or suggest at least the feature of a terminal transmitting a manuscript ID of a scanned manuscript without image data of the scanned manuscript to a central control unit to receive information of character recognizing condition obtained by the

central control unit base on the manuscript ID, where the terminal performs character recognition of character images included in image data of the scanned manuscript in accordance with the obtained information of character recognizing condition.

Accordingly, independent Claims 16, 20, 24, 79 and 80 are believed to be allowable over the applied references. Reconsideration and withdrawal of the § 103(a) rejections of Claims 16, 20, 24, 79 and 80 are respectfully requested.

The other claims in the application are dependent from the independent claims discussed above and therefore are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merit is respectfully requested.

In view of the foregoing amendment and remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California, office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,



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